

LOGGED BY S. McLandrich	BEGIN DATE 12-5-07	COMPLETION DATE 12-5-07	BOREHOLE LOCATION (Lat/Long or North/East and Datum) N2120909.987 / E5996704.748 (NAD83)	HOLE ID MPTNB-R3
DRILLING CONTRACTOR Gregg Drilling and Testing, Inc.	BOREHOLE LOCATION (Offset, Station, Line) Offset 144ft R Sta 58+22 NB Alignment		SURFACE ELEVATION 9.841 ft (NAVD88)	
DRILLING METHOD Mud Rotary	DRILL RIG Failing 1500		BOREHOLE DIAMETER 5 in.	
SAMPLER TYPE(S) AND SIZE(S) (ID) MC (2.4"), SPT (1.4"), Grab, Shelby (2.87"), Pitcher (2.87")	SPT HAMMER TYPE Automatic, 140 lbs., 30-inch drop		HAMMER EFFICIENCY, ERI 72.8%	
BOREHOLE BACKFILL AND COMPLETION Neat Cement Grout backfill	GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS		TOTAL DEPTH OF BORING 59 ft	

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
7.84	0		Poorly graded GRAVEL with SAND (GP), brown, dry, fine to coarse, angular, SAND is fine, trace CLAY. [FILL]		S1										
	1		1.5', grades moist.												
5.84	2		Poorly graded SAND (SP), medium dense, brown, moist, fine.		S2	6	19	56							
	3		3.0', grades yellowish brown.			9									
	4				S3	5	15	100							
	5		5.0', grades dark gray.			6									
	6					9				19.1					PID= 0.1 ppm PA
3.84	7		Fat CLAY (CH), soft, dark bluish gray, wet, with organic odor, with decayed vegetation. [BAY MUD]												
1.84	8		Poorly graded SAND (SP), dark gray, moist, fine. [MARINE SAND]		U4		100	75		66.6	98.7				PID= 0.1 ppm Grab sample at 8.5' PI, LL, C
	9		Fat CLAY (CH), soft, dark bluish gray, moist to wet, trace fine SAND with decayed vegetation. [BAY MUD]							54					
	10		Poorly graded SAND (SP), dark bluish gray, wet, fine to medium, trace fines. [MARINE SAND]							32.7					
	11														
-2.16	12		Grades light yellowish brown, dense, fine.												
	13				S5	16	60	100							
	14					27									
-4.16	15				S6	7	30	100							PID= 0.1 ppm
	16					14									
	17					16									
-8.16	18		Fat CLAY (CH), soft, bluish gray, moist to wet, with SAND lenses. [SANDY BAY MUD]		S7	0	2	100				TV = 0.3			
	19		Grades with lenses of CLAYEY SAND.			0									PA
	20		Grades without SAND lenses.		S8	0	2	100							PA
-10.16	21		CLAYEY SAND (SC), bluish gray, wet, very fine. [MARINE SAND]			0				53.5					PID= 0.1 ppm
	22				U9		100	100							
	23									23.3	124.7	UU = 0.25			PA
-14.16	24		Poorly graded SAND with CLAY (SP-SC), dense, yellowish brown, wet, fine, with zones of iron-oxide staining, with greenish gray mottling. [COLMA SAND]		S10	9	300	100							
	25					13	40								
						27									

(continued)



Department of Transportation  
Division of Engineering Services  
Geotechnical Services

REPORT TITLE  
BORING RECORD

DIST. 4 COUNTY S.F. ROUTE 101 POSTMILE 8.3/9.4

HOLE ID  
MPTNB-R3

EA  
163701

PROJECT OR BRIDGE NAME  
Doyle Drive Replacement Project

BRIDGE NUMBER 34-0163R PREPARED BY T. Carroll

DATE  
11-3-08

SHEET  
1 of 3

Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 in	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
-16.16	25		Poorly graded SAND (SP), dense, yellowish brown, wet, fine.												
-18.16	28		Grades very dense.	✕	S11	50/6"	50/6"	100							PID= 0.1 ppm
	29			✕	S12	20	77	100							
	30					35									
	31					42									
-22.16	32														
-24.16	33		Grades with iron-oxide staining, SAND grades very fine.	✕	S13	50/6"	50/6"	100							PID= 0.1 ppm
	34		Grades heavy iron-oxide staining, with lenses of yellowish brown sandy CLAY.	✕	S14	16	62	100							
	35					25									
	36					37									
-26.16	36														
	37														
-28.16	38		Poorly graded SAND with SILT (SP-SM), very dense, light yellowish brown, wet.	✕	S15	21	50/6"	100							PID= 0.1 ppm
	39			✕	S16	16	52	100							PA
	40		Grades dark yellowish brown, SAND grades very fine.			21				21.8					
	41					31									
-32.16	42														
-34.16	43			✕	S17	50/6"	50/6"	100							PID= 0.1 ppm
	44			✕	S18	25	85	100							
	45					35									
	46					50									
-36.16	46														
	47														
-38.16	48		SILTY SAND (SM), very dense, dark yellowish brown, wet, very fine.		U19			63							PA, CU
	49									16.2	132.9				PID= 0.1 ppm
-40.16	50		49.2', heavily iron-oxidized and strongly cemented zone.												
	51														
-42.16	52														
	53			✕	S20	35	50/	100							
	54		Grades olive gray with increase in fines content.	✕	S21	4.5"/	4.5"	100							PID= 0.1 ppm
	55					15	61								
						25									
						36									

(continued)



Department of Transportation  
Division of Engineering Services  
Geotechnical Services

# REPORT TITLE BORING RECORD

DIST.  
4

COUNTY  
S.F.

ROUTE  
101

POSTMILE  
8.3/9.4

HOLE ID  
MPTNB-R3

EA  
163701

PROJECT OR BRIDGE NAME  
Doyle Drive Replacement Project

BRIDGE NUMBER  
34-0163R

PREPARED BY  
T. Carroll

DATE  
11-3-08

SHEET  
2 of 3

Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
-46.16	56		SILTY SAND (SM), very dense, dark yellowish brown, wet, very fine.												
-48.16	58		Poorly graded CLAYEY SAND (SC), very dense, olive gray, wet, fine, with pockets of iron-oxide staining.	S22	18 20 37	57	100			22.6				PA	
	59		Borehole terminated at a depth of 59 feet on 12/5/2007.												
-50.16	60		See Boring Record Legend for soil classification chart and key to test data and sampler type.												
-52.16	62														
-54.16	64														
-56.16	66														
-58.16	68														
-60.16	70														
-62.16	72														
-64.16	74														
-66.16	76														
-68.16	78														
-70.16	80														
-72.16	82														
-74.16	84														
	85														



Department of Transportation  
Division of Engineering Services  
Geotechnical Services

REPORT TITLE BORING RECORD				HOLE ID MPTNB-R3	
DIST. 4	COUNTY S.F.	ROUTE 101	POSTMILE 8.3/9.4	EA 163701	
PROJECT OR BRIDGE NAME Doyle Drive Replacement Project					
BRIDGE NUMBER 34-0163R		PREPARED BY T. Carroll		DATE 11-3-08	SHEET 3 of 3

Figure